

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

5           Claims 1-46 (Canceled)

47.   (Currently amended) A method of determining a presence or absence of tissue oedema, the method comprising the steps of:

          performing a first measurement of bioelectrical impedance in a subject at a single low frequency alternating current, wherein said single low frequency alternating current is greater than 0 kHz, but no greater than 30 kHz;

          performing a second measurement of bioelectrical impedance in the same subject at the same low frequency alternating current; **and**

          processing said first and said second measurement of bioelectrical impedance to obtain a result; **and**

15           determining if the result is outside the expected range for ~~an unaffected~~ a population of clinically unaffected subjects to thereby provide an indication of the presence or absence of tissue oedema.

48.   (Previously presented) The method of claim 47, wherein the first measurement of bioelectrical impedance is of a first anatomical region of the subject and the second measurement of bioelectrical impedance is of a second anatomical region different than the first anatomical region of the same subject.

49.   (Previously presented) The method of claim 48, wherein the first anatomical region and the second anatomical region are paired similar anatomical regions and wherein one of the anatomical regions is unaffected by tissue oedema.

50. (Previously presented) The method of claim 48, wherein the first anatomical region and the second anatomical region are dissimilar and wherein one of the anatomical regions is unaffected by tissue oedema.

51. (Previously presented) The method of claim 48, wherein the anatomical regions are limbs or parts of limbs.

52. (Previously presented) The method of claim 47, wherein the first measurement of bioelectrical impedance and the second measurement of bioelectrical impedance are of a same anatomical region and wherein the first measurement and the second measurement are separated in time.

10 53. (Previously presented) The method of claim 47, wherein the single low frequency alternating current is in the range of 5 to 20kHz.

54. (Previously presented) The method of claim 53, wherein the single low frequency alternating current is in the range of 10 to 15kHz.

15 55. (Previously presented) The method of claim 54, wherein the single low frequency alternating current is 10kHz.

56. (Previously presented) The method of claim 47, wherein the step of analyzing the two measurements to obtain an indication of the presence of tissue oedema includes the step of dividing a lesser result of the two measurements into a greater result of the two measurements to obtain a ratio.

20 57. (Previously presented) The method of claim 47, wherein the step of analyzing the two measurements to obtain an indication of the presence of tissue oedema includes the step of dividing the greater result of the two measurements into the lesser result to obtain a ratio.

58. (Previously presented) The method of claim 47, further including the step

of establishing a correcting factor for analyzing the two measurements.

59. (Previously presented) The method of claim 58, wherein the step of establishing a correcting factor includes the step of obtaining bioelectrical impedance measurements from a plurality of subjects unaffected by tissue oedema.

5 60. (Currently amended) An apparatus for determining a presence or absence of tissue oedema, the apparatus comprising:

a proximal electrode and a distal electrode in electrical connection with a power source for applying an alternating current to at least one anatomical region, wherein the alternating current is a single low frequency greater than 0 kHz, but no greater than 30  
10 kHz;

a first connection and second connection for location on or near said anatomical region, the first and second connection being for measuring bioelectrical impedance of said at least one anatomical region and producing a signal characteristic of bioimpedance for said at least one anatomical region; and

15 at least one processor programmed to perform analysis of data in relation to the first and second measurement of bioelectrical impedance to obtain a result and determine if the result is outside the expected range for an unaffected a population of clinically unaffected subjects to thereby provide an indication of the presence of tissue oedema.

61. (Previously presented) The apparatus of claim 60, wherein the proximal  
20 electrode and the distal electrode in electrical connection with the power source apply a same single low frequency alternating current to a first and a second anatomical region.

62. (Previously presented) The apparatus of claim 61, wherein the same single low frequency alternating current is simultaneously applied to said first and said second anatomical region.

63. (Previously presented) The apparatus of claim 60, wherein said first and said second measurements are of a same anatomical region separated in time.

64. (Canceled)

65. (Canceled)

5 66. (Canceled)

67. (Previously presented) The apparatus of claim 64, further including means for recording bioimpedance in two anatomical regions of the same subject.

68. (Previously presented) A method of determining a presence or absence of tissue oedema, the method comprising the steps of:

10 performing a first measurement of bioelectrical impedance in a subject at a single low frequency alternating current, wherein said single low frequency alternating current is greater than 0 kHz, but no greater than 30 kHz;

performing a second measurement of bioelectrical impedance in the same subject at the same low frequency alternating current;

15 processing said first and said second measurement of bioelectrical impedance by dividing a lesser result of the two measurements into a greater result of the two measurements to obtain a ratio that is compared with a value for bioelectrical impedance measurements from a plurality of subjects unaffected by tissue oedema to thereby provide an indication of the presence or absence of tissue oedema.

20 69. (Previously presented) A method of determining a presence or absence of tissue oedema, the method comprising the steps of:

performing a first measurement of bioelectrical impedance in a subject at a single low frequency alternating current, wherein said single low frequency alternating current is greater than 0 kHz, but no greater than 30 kHz;

performing a second measurement of bioelectrical impedance in the same subject at the same low frequency alternating current;

processing said first and said second measurements of bioelectrical impedance by dividing a greater result of the two measurements into a lesser result of the two

5 measurements to obtain a ratio that is compared with a value for bioelectrical impedance measurements from a plurality of subjects unaffected by tissue oedema to thereby provide an indication of the presence or absence of tissue oedema.

70. (New) An apparatus for determining a presence or absence of tissue oedema, the apparatus comprising:

10 a proximal electrode and a distal electrode in electrical connection with a power source for applying an alternating current to at least one anatomical region, wherein the alternating current is a single low frequency greater than 0 kHz, but no greater than 30 kHz;

15 a first connection and second connection for location on or near said anatomical region, the first and second connection being for measuring bioelectrical impedance of said at least one anatomical region and producing a signal characteristic of bioimpedance for said at least one anatomical region; and

20 at least one processor programmed to perform analysis of data in relation to a first and second measurement of bioelectrical impedance by dividing a lesser result of the two measurements into a greater result of the two measurements to obtain a ratio that is compared with a value for bioelectrical impedance measurements from a plurality of subjects unaffected by tissue oedema to thereby provide an indication of the presence or absence of tissue oedema.

71. (New) An apparatus for determining a presence or absence of tissue

oedema, the apparatus comprising:

a proximal electrode and a distal electrode in electrical connection with a power source for applying an alternating current to at least one anatomical region, wherein the alternating current is a single low frequency greater than 0 kHz, but no greater than 30  
5 kHz;

a first connection and second connection for location on or near said anatomical region, the first and second connection being for measuring bioelectrical impedance of said at least one anatomical region and producing a signal characteristic of bioimpedance for said at least one anatomical region; and

10 at least one processor programmed to perform analysis of data in relation to a first and second measurement of bioelectrical impedance by dividing a greater result of the two measurements into a lesser result of the two measurements to obtain a ratio that is compared with a value for bioelectrical impedance measurements from a plurality of subjects unaffected by tissue oedema to thereby provide an indication of the presence or  
15 absence of tissue oedema.

72. (New) A method of determining a presence or absence of tissue oedema, the method comprising the steps of:

performing a first measurement of bioelectrical impedance of a first anatomical region of a subject at a single low frequency alternating current, wherein said single low  
20 frequency alternating current is greater than 0 kHz, but no greater than 30 kHz;

performing a second measurement of bioelectrical impedance of a second anatomical region different than the first anatomical region of the same subject at the same low frequency alternating current; and

processing said first and said second measurement of bioelectrical impedance using

a correcting factor to obtain a result and determining if the result is outside the expected range for an unaffected population to thereby provide an indication of the presence or absence of tissue oedema.

73. (New) An apparatus for determining a presence or absence of tissue  
5 oedema, the apparatus comprising:

a proximal electrode and a distal electrode in electrical connection with a power source for applying an alternating current to at least one anatomical region, wherein the alternating current is a single low frequency greater than 0 kHz, but no greater than 30 kHz;

10 a first connection and second connection for location on or near said anatomical region, the first and second connection being for measuring bioelectrical impedance of said at least one anatomical region and producing a signal characteristic of bioimpedance for said at least one anatomical region; and

15 at least one processor programmed to perform analysis of data in relation to a first and second measurement of bioelectrical impedance by using a correcting factor to obtain a result and determining if the result is outside the expected range for an unaffected population to thereby provide an indication of the presence or absence of tissue oedema.